CIVIL TECH LABS

Accredited by **NABL** as per ISO/ IEC 17025 : 2005

5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027

Ph: 080 - 4114 2867 / Mob. : 96862 31801, Email: civiltechlabs@gmail.com

T-2654

To,

Assistant Executive Engineer
Kodigehalli Sub Division,
BBMP.

17th April 2015

Dear Sir,

Sub: Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division. Testing of cubes – Reg.

As requested the 28th day Compressive Strength Test of Cubes was carried out for the above work for the samples supplied by you.

Please find the enclosed Test Reports of the above.

Thanking you,

For Civil Tech Labs,

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

CIVIL TECH LABS
5, 1st Cross, Srinivasa Colony, Mission Road, Bangalore - 560027
Ph: 080 - 4114 2867, Email: civiltechlabs@gmail.com

TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division.
Name of Agency	Sri. A. Manjunath, Contractor
Grade of Concrete	M-20
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm²
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	CC-Work (Drain)	16/03/2015	13/04/2015	28	8.17	475	**21.11**	**21.41**
2					8.18	480	**21.33**	
3					8.19	490	**21.78**	

AE-1

Note:

1. The results relate only to the items tested.
2. Report shall not be reproduced except in full, without the written approval of the lab.
3. Any correction invalidates this report.
4. The results are based on the test conducted on samples supplied by the customer.

Lab Incharge
Civil Tech Labs

CIVIL TECH LABS BANGALORE

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TEST REPORT

COMPRESSIVE STRENGTH TEST ON CONCRETE CUBES

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division.
Name of Agency	Sri. A. Manjunath, Contractor
Grade of Concrete	M-20
No. of cubes tested	3
Dimension of Specimen	150mmx150mmx150mm
Cross Sectional Area	22500 mm²
Technical Reference	IS: 516-1959 (Reaffirmed 2013)

Sl. No.	Identification	Date of Casting	Date of Testing	Age at test (Days)	Weight (Kg)	Failure Load (KN)	Compressive Strength (N/mm²)	Avg Compressive Strength (N/mm²)
1	CC-Work (Pavement)	20/03/2015	17/04/2015	28	8.16	475	**21.11**	**21.41**
2					8.18	480	**21.33**	
3					8.19	490	**21.78**	

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T-2654

To,

Assistant Executive Engineer
Kodigehalli Sub Division,
BBMP.

02nd March 2015

Dear Sir,

Sub: Testing of Materials.

As requested, the required tests were carried out for the materials the samples supplied by you, for the work of **'Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division.'**

Please find the enclosed Test Reports of the above.

Thanking You,
For Civil Tech Labs

AE-1

Khushboo

CIVIL TECH LABS BANGALORE

(KHUSHBOO L.)
Quality Manager

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TEST REPORT

TEST ON REINFORCEMENT STEEL BARS 10mm

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division.
Name of the Agency	Sri. A. Manjunath, Contractor
Date of Testing	02/03/2015

Sl.No.	Description	Result	IS 1786-2008 Min. Requirements	Remarks
1	Measured Diameter mm	10	10	Satisfactory
2	Wt/m Length (Kg/m)	0.618	0.617	Satisfactory
3	Bend & RebendTest	Pass	Should not Crack or Fracture	Satisfactory
4	Elongation (%)	14.9	14.5	Satisfactory
5	Yield Stress(N/Sq.mm)	421	415	Satisfactory
6	U T S (N/Sq.mm)	526	485	Satisfactory

AE-1

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Khushboo

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TEST REPORT

TEST ON CEMENT

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division.
Name of the Agency	Sri. A. Manjunath, Contractor
Date of Testing	02/03/2015

Tests	**Test Method As Per IS & Apparatus**		**Results**		**Requirements As Per IS 8112:1989**	**Remarks**
	IS Code	**Method**	**Value**	**Unit**		
Initial Setting Time	**IS-4031 (Part-5) 1988**	VICAT	54	min	Not Less Than 30 Minutes	Satisfies Requirement
Final Setting Time	**IS-4031 (Part-5) 1988**	VICAT	486	min	Not More Than 600 Minutes	Satisfies Requirement
Soundness	**IS-4031 (Part-3) 1988**	LE-CHATELIER	5	mm	Not More Than 10 mm	Satisfies Requirement

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TEST REPORT

TEST ON FINE AGGREGATES Ref:IS:383/2386

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division.
Name of the Agency	Sri. A. Manjunath, Contractor
Date of Testing	02/03/2015
Specific Gravity	**2.55**

Sample	IS Sieve designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970				Grading Zone
			ZONE-I	ZONE-II	ZONE-III	ZONE-IV	
River Sand	10	**100**	100	100	100	100	II
	4.75	**98.6**	90-100	90-100	90-100	95-100	
	2.36	**83.6**	60-95	75-100	85-100	95-100	
	1.18	**75.4**	30-70	55-90	75-100	90-100	
	0.6	**45.7**	15-34	35-59	60-79	80-100	
	0.3	**23.5**	5-20	8-30	12-40	15-50	
	0.15	**7.4**	0-10	0-10	0-10	0-15	

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TEST REPORT

TEST ON COARSE AGGREGATES 40mm ↓ Graded Ref:IS:383/2386

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division.
Name of the Agency	Sri. A. Manjunath, Contractor
Date of Testing	02/03/2015
Specific Gravity	**2.66**
Water Absorption in %	**0.29**

IS Sieve Designation (mm)	Sieve Analysis (% Passing IS Sieve)	Grading Requirement as per IS:383-1970 (Reaffirmed 2011)	Remarks
80	**100**	100	**Satisfies the requirement**
40	**98.4**	95-100	
20	**52.3**	30-70	
10	**22.5**	10-35	
4.75	**3.7**	0-5	

AE-1

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TEST REPORT

TESTS ON SOLID BLOCKS

Name & Address of the Customer	AEE, Kodigehalli Sub Division, BBMP
Name of Work	Improvements to roads and drains in Amruthahalli Easterside surrounding roads in ward no. 07, (Byatarayanapura) in Kodigehalli Sub Division.
Name of Agency	Sri. A. Manjunath, Contractor
Date of Testing	02/03/2015
Technical Reference	IS: 2185(Part-I)-2005 (Reaffirmed 2010)
No. of samples tested	8
Grade	C (4.0)

1. COMPRESSIVE STRENGTH

Sl. No.	Nominal Dimension (cms)	Compressive strength (N/mm^2)	Minimum Compressive Strength as per IS: 2185(Part-I)-2005 (Reaffirmed 2010)	
			Individual	Avg. of 8 samples
1	40x20x20	4.4	Minimum Compressive Strength of Individual Units	Minimum Average Compressive Strength of Units
2		4.3		
3		4.3	For Grade C (5.0)- 4.0 N/mm^2 For Grade C (4.0)- 3.2 N/mm^2	For Grade C (5.0)- 5.0 N/mm^2 For Grade C (4.0)- 4.0 N/mm^2
4		4.2		
5		4.1		
6		4.3		
7		4.4		
8		4.5		
Average Compressive strength (N/mm^2)		**4.3**		

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WATER ABSORPTION

Sl. No.	Nominal Dimension (cms)	Water Absorption (% by weight)	Average (% by weight)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2010)
1	40x20x20	7.74	**7.77**	When three samples are tested the average water absorption shall not be more than 10% by mass
2		7.82		
3		7.76		

3. BLOCK DENSITY

Sl. No.	Nominal Dimension (cms)	Block Density (Kg/cum)	Average (Kg/cum)	Requirements as per IS : 2185(Part-I)-2005 (Reaffirmed 2010)
1	40x20x20	1863.4	**1868.1**	The Solid Concrete blocks used as load bearing units shall have average block density not less than 1800Kg/m³
2		1868.5		
3		1872.4		

Remarks	Satisfies the Requirements.

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